

Work Order ID 50081

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July 08, 2009 11:40:36 AM

Item ID: D206-667-101

Accept

Setup Start

Revision ID: C

Stop

Item Name: Crosstube Fwd

Start Date: 7/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 7/31/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D206-667-141	Rev C
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100

0.00

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D206-667-101 CHG003

8/2/07

110

0.00

Packaging

Packaging

Memo

0.00

Packaging

8/9/07 (1)

120

0.00

BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D206-667-141 using CNC bender program 206B-fw and Folio FT _____

DP 9-7-14

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Accept

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Start Date: 7/10/2009 **Start Qty:** 1.00

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Required Date: 7/31/2009 **Req'd Qty:** 1.00

Customer:

Reference:

Run Start

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC15- Crosstube Dimensional Check	0.00							
QC Quality Control	Memo	0.00				1	0		<i>[Signature]</i> 10907-15
140	Crosstubes	0.00							
Crosstubes	Memo	0.00							
Crosstubes	1-Drill holes & ream using drill Jig DT8541 & DT8542 as per Dwg D206-667-141. Drill all (3) top holes. □3-Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins.□4-Drill pilot holes using dr								
150	Crosstubes Chemical Conversion	0.00							
HandFXtube Hand Finishing Crosstubes	Memo	0.00							

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Setup Start

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Customer:

Reference:

Run Start

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC3- Inspect Part Finish

0.00

$$\Rightarrow \delta 05/07/16$$


①

QC

Memo

0.00

Quality Control

170

QC5- Inspect part completeness to step on W/O

0.00

$\Rightarrow 509/07/16$

46

2

QC

Memo

0.00

Quality Control

180

Outsource process - NDT per QSI038 4.1

0.00

Outsource2

Memo

0.00

Outsource process - NDT

Liquid Penetrant Inspection as per QSI 038Or ☐ Issue P/O: 10009 LPI as
per ASTM 1417 ☐ Level 2 Attach copy of NDT results to work order

CZ 09/07/16 ①

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

190

0.00

Packaging

Packaging

Memo

0.00

Packaging

Ensure copy of NDT results attached to work order.

PC 4/2/17 (1)

200

0.00

QC6- Inspect dimensions to drawing

QC

Memo

0.00

Quality Control

Inspect for damage & ensure results are as per Dwg D206-667-103

ET 09-07-20

(P70)
See Dwg
backside

210

0.00

SprayPaint

SprayPaint

Memo

0.00

Spray Painting

1-Prime inside and outside crosstube as per QSI 005 4.2.1*****Let tube sit up right for 30mins before hanging*****P4500-P-23 Base
Batch: 111134 P4500-C-23 Catalyst Batch: 111134 Start
time: 12.00 F

ml 09 07 22 (1)

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220 QC14- Inspect Spray Paint

0.00

QC

Memo

0.00

Quality Control

Wrap in plastic bag to protect from scratches

RT 09-07-23

230

0.00

SprayPaint

SprayPaint

Memo

0.00

Spray Painting

1-Paint outside crosstube with White Imron as per QSI 005
4.2 ☐ Imron 55U white paintBatch: 112073 ☐ Imron 125S activatorBatch: 112073 ☐ Start: 12:30

⇒ ml 09 07 23 ①

240

QC14- Inspect Spray Paint

0.00

QC

Memo

0.00

Quality Control

RT 09-07-23

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

250

0.00

Crosstubes

Crosstubes

Memo

0.00

Crosstubes

1-Install support using 0.03" to 0.06" thick layer of magnobond 6398 per QSI
015. Let cure for 12h after installation and prior to packaging. Note: (3) top
holes should be facing up. □ A/R Magnobond 6398 : 11/249 exp: 02/2010 ⇒ MM 09 07 23 ①
Torque clamps to 80-100 in lb □ 3 MM 09 07 24 ①

260

0.00

QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

270

0.00

Pick Kit

Packaging

Memo

0.00

Packaging

9/17/24 @ SP

Work Order ID 50081

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Cust Item ID:

Required Date: 7/31/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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280 QC4- 100% Inspect kits for completeness

0.00

2) 806/27

0.00

QC

Memo

Quality Control

290

0.00

Packaging

Packaging

Memo

0.00

Packaging Identify and pack for shipping as per PPP D206-667-

101 ☐ Location: _____ ☐ PPP Rev: _____

300

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

MF 09-07-27

Picklist Print

Page 1

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Work Order ID: 50081

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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AN960JD516		Purchased	No			100 270	Each	1,603.000	18.0000			
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Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 1603

100564 2

106167 6

107534 34

107959 43

108246 46

108672 2

109059 49

109752 22

110363 46

110523 57

111279 296

112082 1000

D206-667- 101TRNRevC		Manufactured	No			250 110	Each	2.0000	1.0000			
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112082 9/7/24 SC

Crosstube Turning Detail

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FG 2

37980 1

37981 1

1X MA 09-07-15

Picklist Print

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Work Order ID: 50081

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2873-043RevA		Manufactured	No			250	Each	37.0000	2.0000			

Nut Plate Assembly

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	37	
45370	20	
45422	17	

ml ml 09 07 20 (2)

D2873-045RevA		Manufactured	No			250	Each	35.0000	2.0000			
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Nut Plate Assembly

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	35	
45210	15	
46772	20	

ml ml 09 07 20 (2)

13595-063-395 qty: 4

Batch #: 44667 ml 09 07 23

Route seq: 250

09/07/15

Picklist Print

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Work Order ID: 50081

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2891-1RevA1		Manufactured	No			250	Each	65.0000	2.0000			

2.25 Support

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 65
40336 1
41198 20
43880 20
45935 4
46159 20

not not 09 07 23

MS21920-20 Purchased No

~~250~~
270

Each 91.3000 4.0000

Clamp (per MIL-DTL-8783C)

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 91.3
103478 2
106484 12
109269 9.3
110536 18
111281 50

not not 09 07 23

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Shop Packet Print

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Picklist Print

Page 4

July 08, 2009 11:40:36 AM

Work Order ID: 50081

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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S AN5-30A *44*

Purchased

No

280
270

Each

93.0000

4.0000

BOLT

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

93

110467

93

Each

119.0000

4.0000

110467

9/11/24 se

S AN5-32A *44*

Purchased

No

280
270

Each

119.0000

4.0000

Bolt

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

119

106242

3

106519

4

110363

17

111916

45

112082

50

111916

50

July 08, 2009 11:40:36 AM

Shop Packet Print

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Picklist Print

Page 5

July 08, 2009 11:40:36 AM

Work Order ID: 50081

Parent Item: D206-667-101RevC

Parent Item Name: Crosstube Fwd

Start Date: 7/10/2009

Required Date: 7/31/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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AN5-7A		Purchased	No			280 270	Each	53.0000	10.0000			
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Bolt

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 53

110625 7

111668 46

MS20601-AD4W8		Purchased	No			280 250	Each	156.0000	14.0000			
---------------	--	-----------	----	--	--	------------	------	----------	---------	--	--	--

RIVET

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 156

108521 100

110399 56

MS21042L5		Purchased	No			280 270	Each	787.0000	4.0000			
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Nut

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 787

110382 10

111127 277

111636 500

July 08, 2009 11:40:36 AM

Shop Packet Print

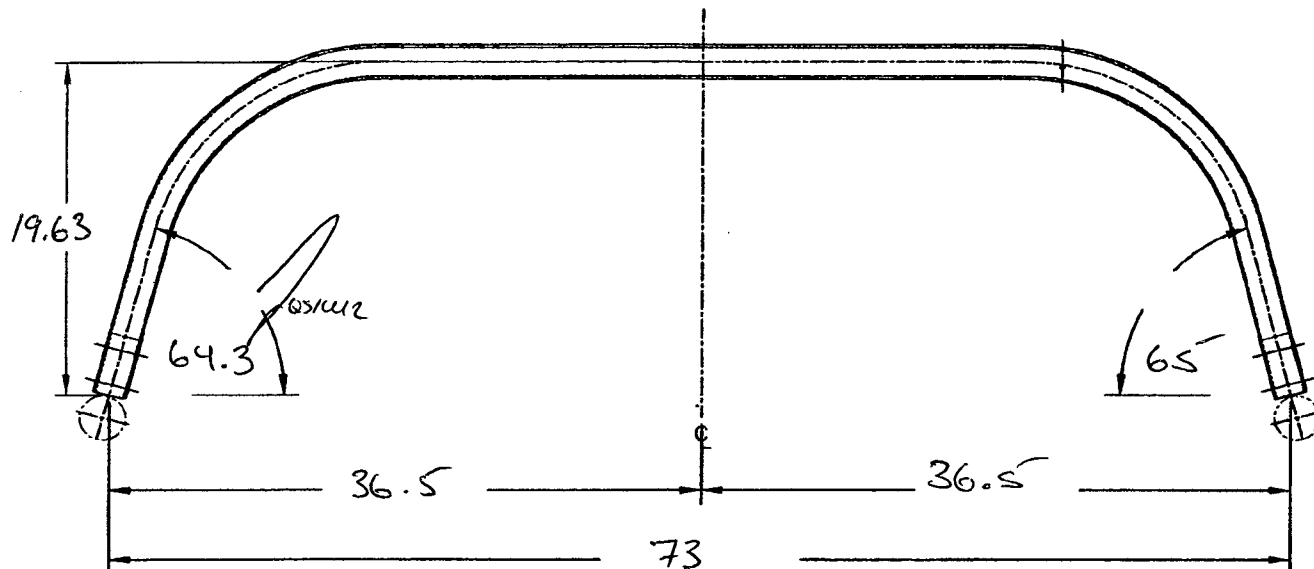
Page 5

DART AEROSPACE LTD		Work Order:	50081
Description: Crosstube High Fwd (206B)		Part Number:	D206-667-101
Inspection Dwg: D206-667-141		Rev: <i>B C</i>	Page 1 of 1

Required Dimension	Min	Max
Height	19.48 41	19.88 67
1/2 Span	36.54 47	36.86 73
Angle	65	67
Total Span	73.08	73.72 46

72.94

73.2 mm



Comments
Tube fits well into the jig.

QC15 Inspection	<i>OS1412</i>
Date	05.07.15

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	<i>[Signature]</i>

Item	Qty -141	Part Number	Description
1	X	D206-667-141	CROSSTUBE ASSEMBLY (206B HIGH FWD)
2	1	D6001-105	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6001-105
FINISHED LENGTH = 93.18±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-141" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 11.3 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 12 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

50081

RELEASED
02/11/12

C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN C4-3, C5-3 & D3-3); RELOCATED FLAG #8 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO. D206-667-141	REV. C SHEET 1 OF 4
CHECKED	RF	TITLE CROSSTUBE ASS'Y (206B HIGH FWD)	SCALE NTS
MFG. APPR.	RF	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
APPROVED	RF	DATE 08.11.06	
DE APPR.	RF		

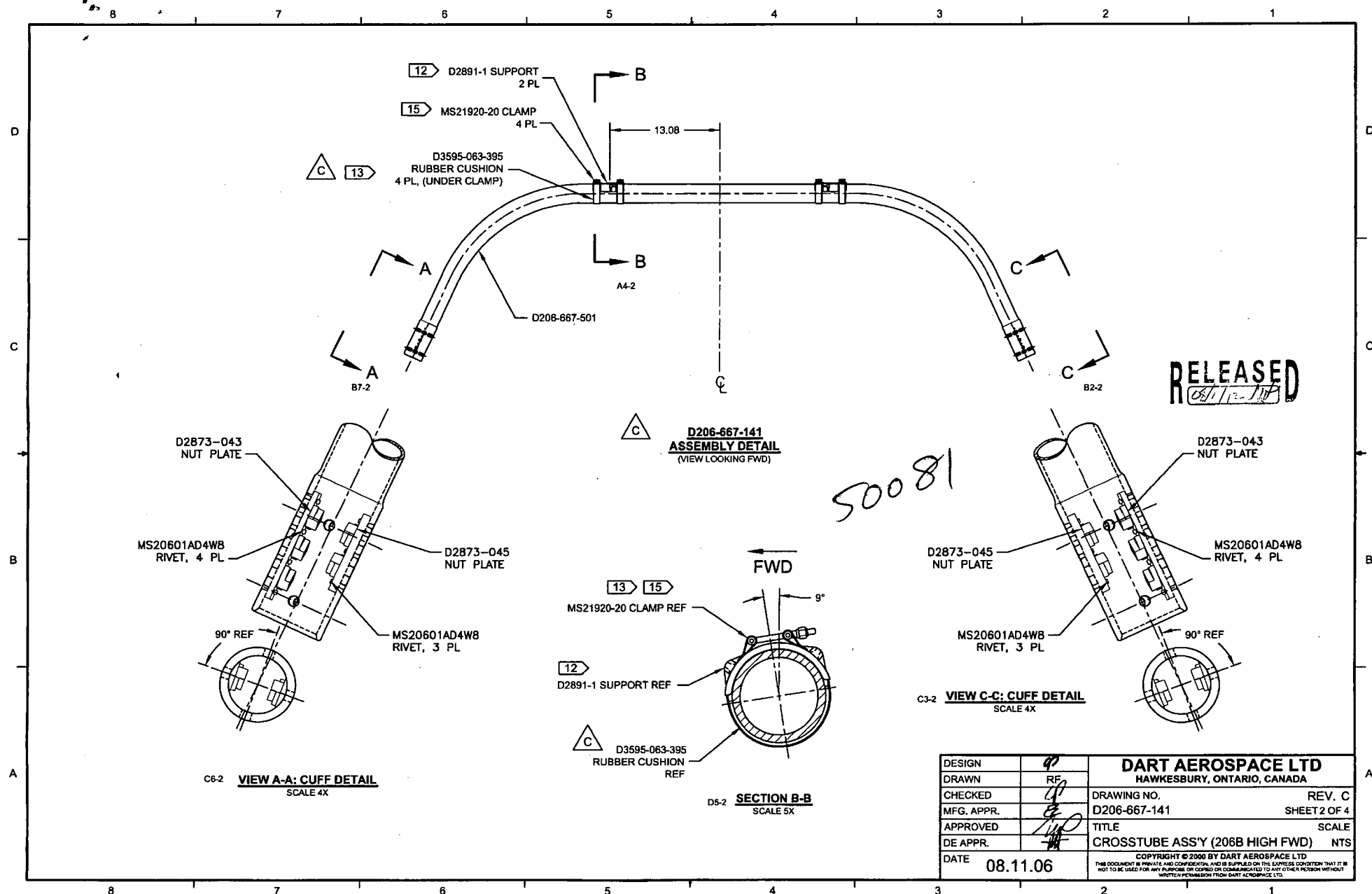
W/O: 50081		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09/07/20	200	change to QC 5 for inspection. perm change		09/07/20		 09-07-20	 09-07-20

Part No: D206-667-101 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



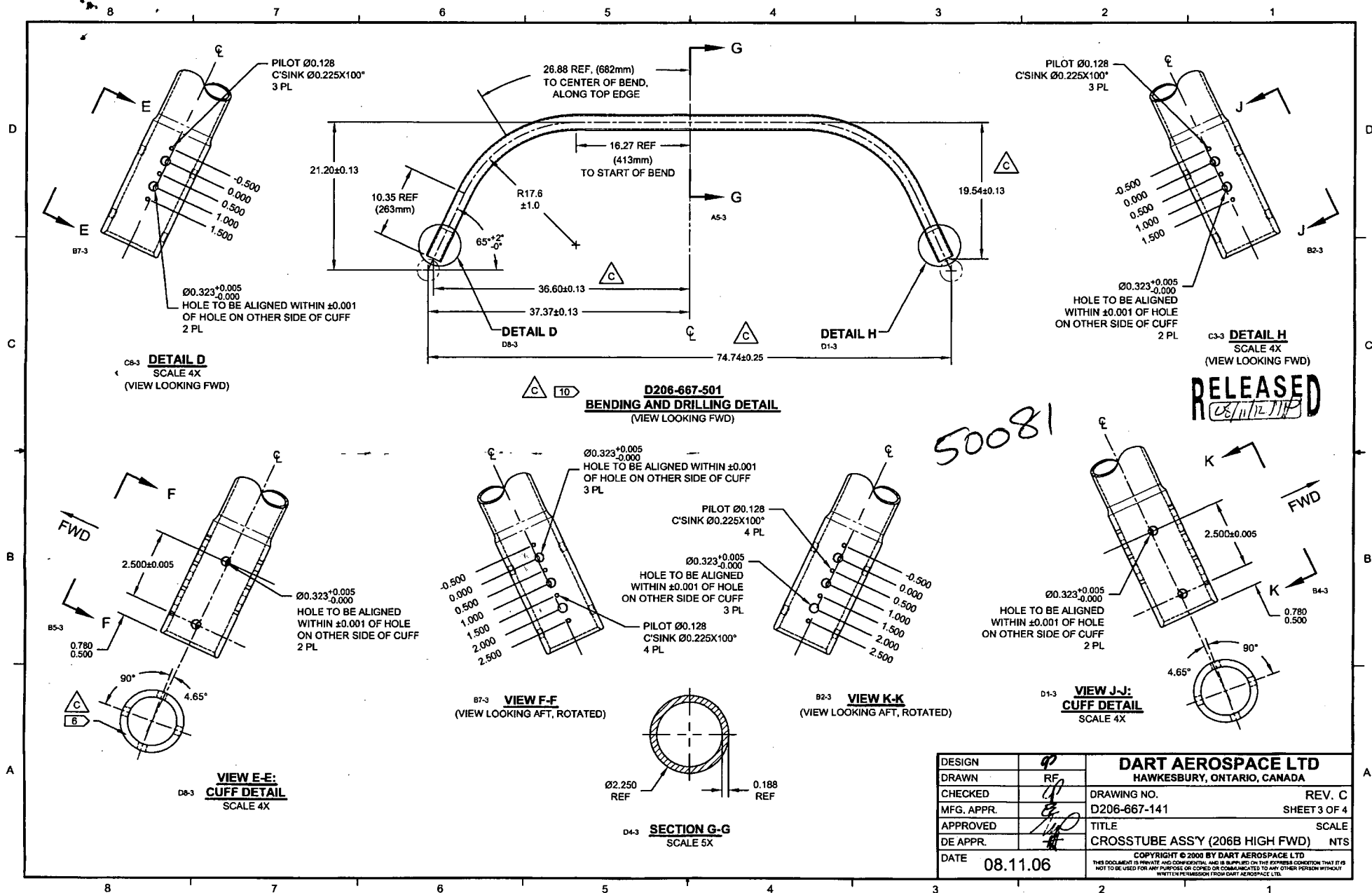
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



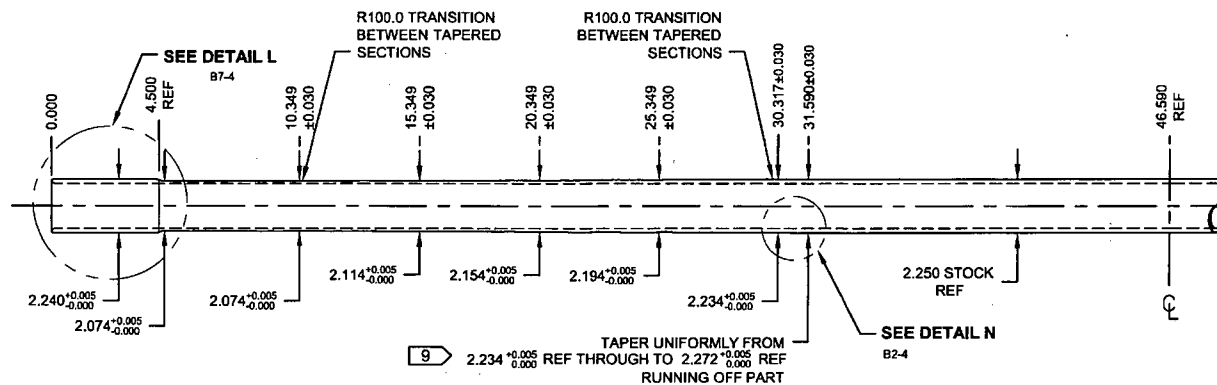
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

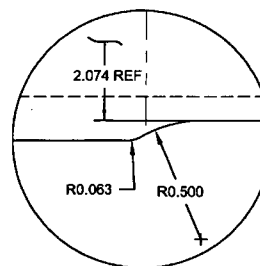
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

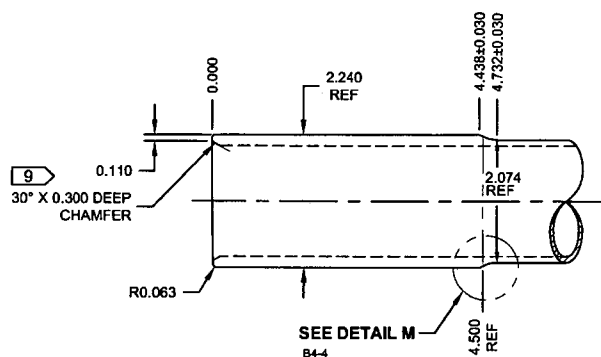
NOTE: Date & initial all entries



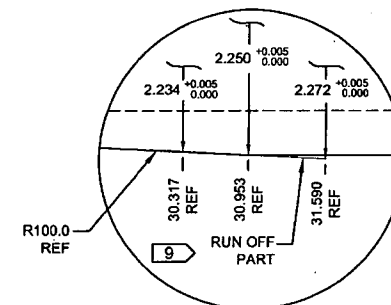
TURNING DETAIL



DETAIL M:
CUFF TRANSITION
NOT TO SCALE



DETAIL L:
CROSSTUBE CUFF
NOT TO SCALE



DETAIL N:
TAPER RUN-OFF
NOT TO SCALE

DESIGN	97	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	GP	DRAWING NO.	REV. C
MFG. APPR.	GP	D206-667-141	SHEET 4 OF 4
APPROVED	GP	TITLE	SCALE
DE APPR.	GP	CROSSTUBE ASS'Y (206B HIGH FWD)	NTS
DATE	08.11.06	COPYRIGHT © 2000 BY DART AEROSPACE LTD	
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RELEASED
08/11/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



LIQUID PENETRANT TEST REPORT

P- 14943

PAGE 1 OF 1

CLIENT DART AEROSPACE DATE July 16-2009 TIME AM ☒ PM ☐
ATTENTION LINDA/CHATEL ACUREN JOB NO. 188-09-001468
ADDRESS 1270 ABERDEEN ST. POWO No.
HAWKESBURY, ON. K6H 1K7 WORK LOCATION HAWKESBURY
ACCEPTANCE STD. ASTM 1417 REV./DATE 2007
PROJECT F.P.I. ON CROSS TUBES
ITEM(S) EXAMINED 6 - X - TUBES

JOB DESCRIPTION PROCEDURE No. LT-x-xxx REV./DATE *
TECHNIQUE No. LT-xxxx-xxx REV./DATE
PART No. MATERIAL Aluminum THICKNESS
SCOPE WET FLUORESCENT LIQUID PENETRANT INSPECTION
CARRIED OUT 100% EXTERNAL

TEST DETAILS

METHOD ☒ FLUORESCENT ☐ VISIBLE ☒ WATER WASH ☐ SOLVENT REMOVABLE ☐ POST EMULSIFIED
FAMILY BRAND MAGNA FLUX BLACK LIGHT S/N 16459 ☐ OUTPUT > 1000 μ W/cm² ☐ AMBIENT < 2 fc
PENETRANT ZL 67 MINIMUM DWELL TIME 45 MIN. LIGHTING EQUIP. ☐ FLASHLIGHT ☐ TROUBLELIGHT ☐ OUTPUT > 100 fc @ SURFACE
PENETRANT REMOVER H2O MINIMUM DRY TIME >10 MIN. OTHER LAB NO
DEVELOPER SKD 52 MINIMUM DWELL TIME 10 MIN. LIGHT METER S/N CAL DUE DATE DEC 8-2009
DEVELOPER TYPE ☒ NON AQUEOUS ☐ AQUEOUS ☐ DRY

TEST SURFACE

SURFACE CONDITION ☐ AS GROUND ☐ AS WELDED ☒ MACHINED ☐ SHOT BLASTED ☒ CLEAN BARE METAL
SURFACE TEMPERATURE ☐ < -4°C/ 20°F ☐ -4°C/ 20°F TO 10°C/ 50°F ☒ 10°C/ 50°F TO 52°C/ 125°F ☐ > 52°C/ 125°F

RESULTS- ☐ METRIC ☐ IMPERIAL

WORK ORDER	ACCEPT	REJECT
1 - 50081	✓	
1 - 50094	✓	
1 - 50045	✓	
1 - 50019	✓	
1 - 50038	✓	
1 - 50044	✓	
No RELUVANT INDICATIONS WERE FOUND ON THESE SIX CROSS TUBES		

Scope of Services
The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care
In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES

CLIENT REPRESENTATIVE Jan Tittley DTR # E-27929
TECHNICIAN (SIGNATURE): Mike Jetterson REPORT REVIEWED BY:
NAME (PRINT): Mike Jetterson NAME INITIALS
1ST TECHNICIAN 2ND TECHNICIAN
CGSB LEVEL II SNT LEVEL CGSB LEVEL SNT LEVEL
CGSB REG. No 6066 CGSB REG. No

5.0 PARTS LIST

Item	Qty -011	Qty -013	Qty -015	Qty -101	Qty -201	Qty -103	Qty -203	Qty -105	Qty -205	Part Number	Description
	X									D206-667-011	SPACER BLOCK KIT
		X								D206-667-013	NUT PLATE KIT (-101/-103/-105/-203/-205)
			X							D206-667-015	NUT PLATE KIT (-201)
				X						D206-667-101	CROSSTUBE INSTALLATION, 206A/B HIGH FWD
					X					D206-667-201	CROSSTUBE INSTALLATION, 206A/B HIGH AFT
						X				D206-667-103	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH FWD
							X			D206-667-203	CROSSTUBE INSTALLATION, 206L/L-1/L-3/L-4 HIGH AFT
								X		D407-667-105	CROSSTUBE INSTALLATION, 407 HIGH FWD
									X	D407-667-205	CROSSTUBE INSTALLATION, 407 HIGH AFT
1				1						D206-667-141	CROSSTUBE ASSEMBLY, 206A/B HIGH FWD
2					1					D206-667-241	CROSSTUBE ASSEMBLY, 206A/B HIGH AFT
3						1				D206-667-143	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH FWD
4							1			D206-667-243	CROSSTUBE ASSEMBLY, 206L/L-1/L-3/L-4 HIGH AFT
5								1		D407-667-145	CROSSTUBE ASSEMBLY, 407 HIGH FWD
6									1	D407-667-245	CROSSTUBE ASSEMBLY, 407 HIGH AFT
10				*2	*2	*2		*2		D2891-1	SUPPORT
11							*2			D2892-1	SUPPORT
12									*1	D2894-1	SUPPORT
13				*2	*2	*2		*2		D2856-400-694	ABRASION STRIP
14							*2		*2	D2856-400-773	ABRASION STRIP
15									*1	D2856-600-851	ABRASION STRIP
16				*4	*4	*4		*4		MS21920-20	CLAMP
17							*4		*4	MS21920-22	CLAMP
18									*2	MS21920-24	CLAMP
19				4	4	4		4		AN5-32A	BOLT ✓
20							4		4	AN5-34A	BOLT
21				4	4	4	4	4	4	MS21042L5	NUT (OR MS21042-5) ✓
22				8	8	8	8	8	8	AN960JD516	WASHER
23									*2	D3190-1	CHAFING SHIELD
30	8									AN4-6A	BOLT
31	8									AN4-7A	BOLT
32	16									AN960JD416	WASHER
33	2									D3193-041	SPACER BLOCK ASSEMBLY
40		2		*2		*2	*2	*2	*2	D2873-043	NUT PLATE
41		2		*2		*2	*2	*2	*2	D2873-045	NUT PLATE
42			2		2					D2872-043	NUT PLATE
43			2		2					D2872-045	NUT PLATE
44		10		10		10				AN5-7A	BOLT ✓
45		10	10		10		10	10	10	AN5-10A	BOLT
46		4	4	4	10	4		4		AN5-30A	BOLT ✓
47		4					4		4	AN5-32A	BOLT
48		18	18	10	12	10	10	10	10	AN960JD516	WASHER ✓
49		4	4		6					MS21042L5	NUT (OR MS21042-5)

*REFERENCE ONLY. PARTS ARE INCLUDED IN D206-667-141/241/143/243, & D407-667-145/245 ASSEMBLIES ABOVE

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Revision: C

Date: 05.07.26

Work Order ID 50081

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July 08, 2009 11:40:36 AM

Item ID: D206-667-101

Accept

Setup Start

Revision ID: C

Item Name: Crosstube Fwd

Stop

Start Date: 7/10/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 7/31/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D206-667-141	Rev C

		0.00							
	DOCUMENT CONTROL								
	Memo	0.00							
Document Control	Photocopy bluefile and create labels as per PPP D206-667-101 CHG003								

07-27-09 MF 09-09-24

		0.00							
	Packaging								
	Memo	0.00							
Packaging									

09/27/10 (1)

		0.00							
	BENDING MACHINE - CROSSTUBES								
	Memo	0.00							
C Bend 2	Bend tube as per Dwg D206-667-141 using CNC bender program 206B-fw and Folio FT _____								

DP 9-7-14